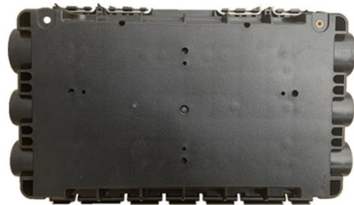


Optical Module OSFP



Article Overview

OSFP (Octal Small Form Factor Pluggable) is a high-speed pluggable optical module supporting up to 1.6 Tbps, with the OSFP-XD variant extending capacity to 3.2 Tbps for data center and high-performance computing applications.

Overview of OSFP

The OSFP is a pluggable form factor designed for high-speed optical communication, featuring 8 high-speed electrical lanes. It supports data rates of 400 Gbps (8x50G), 800 Gbps (8x100G), or 1.6 Tbps (8x200G), and up to 36 OSFP ports can fit in a 1U front panel, making it suitable for dense data center deployments. OSFP modules typically include an integrated heatsink for thermal management, available in open-top or closed-top configurations. The OSFP-RHS variant provides the same electrical performance but requires a separate riding heatsink for cooling, offering design flexibility.

OSFP-XD: Extended Density Variant

The OSFP-XD (Octal Small Form Factor Pluggable – Extended Density) doubles the faceplate density compared to standard OSFP, featuring 16 high-speed electrical lanes. This allows support for 800 Gbps (16x50G), 1.6 Tbps (16x100G), or 3.2 Tbps (8x200G). OSFP-XD modules are designed for pluggable optical interconnects in high-performance computing and AI applications, enabling long-distance optical connections that can extend several hundred meters, far beyond the typical electrical wiring limit of under 10 meters. OSFP and OSFP-XD are not interoperable due to mechanical and electrical differences.

Applications and Benefits

Article Content

What Is an OSFP Module?

Picking an OSFP module for sale today means investing in a piece of the future, where connectivity is seamless and

800G Client Optics in the Data Center

For this implementation, most optical modules integrate a gearbox between the eight-lane switch ASIC connection and the four

What is SFP+ Module? An Ultimate Guide (2024)

The SFP+ module is also called the SFP+ transceiver, SFP+ optical module, SFP+ optics, or SFP+ fiber transceiver.

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

OSFP MSA Rev 5.0

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal

OSFP 400G DR4 Optical Modules Explained: Standards, Cabling,

OSFP (Octal Small Form-Factor Pluggable) is a newer module form factor designed for 400G and beyond. It is slightly

OSFP vs QSFP-DD vs QSFP112 - Choosing the Best Optical Module

Compare OSFP, QSFP-DD, and QSFP112 transceivers. Learn key differences, speed, compatibility, and power design

The Big Differences Between SFP, SFP+, SFP28, QSFP+, QSFP28,

These modules cater to very high-speed requirements found in extensive data centers and high-performance

What Is an SFP Module? Complete Guide

SFP modules, or Small Form-factor Pluggable modules, are essentially the workhorses of

Complete Guide to OSFP Transceiver: 400G/800G/1.6T

The OSFP standard creates a high-speed optical transceiver form factor that enables data

Arista Optics Modules and Cables

To accommodate an increasing spectrum of applications, Arista offers a wide choice of OSFP, QSFP-DD, QSFP, SFP, SFP-DD and

Understanding the OSFP Standard: The Open 400G/800G Optical

OSFP (Octal Small Form Factor Pluggable) is a pluggable optical transceiver interface standard that supports eight

800G Optical Modules Explained: Standards, Types & Use Cases

Discover everything about 800G optical modules—standards, packaging, types & applications. Learn how they power

SFP Module: What's It and How to Choose It?

This blog will explore the function of SFP modules, SFP module types, applications and how to choose suitable SFP

Cisco OSFP 800G Transceiver Modules Data Sheet

It is compliant with IEEE 802.3 800GBASE-VR8 and OSFP MSA module requirements with

Top Optical Modules for POTN Deployment: SFP, QSFP, and OSFP

Modern optical transport networks are the nervous system of digital infrastructure. As data demand continues to

OSFP Transceivers: High-Density Optical Connectivity from 400G to

As hyperscale data centers shift toward AI-optimized fabrics and ultra-high-bandwidth switching platforms, the OSFP

OSFP1600_and_OSFP-XD

The OSFP MSA roadmap provides an excellent mechanical and electrical solution for 800G, 1.6T, and 3.2T pluggable optics with

1.6T OSFP-XD: Next-Gen Data Center Optical Module

The 1.6T OSFP-XD DR8 optical module features low power consumption, high density, and

Understanding OSFP Modules: Your Guide to High

Discover how OSFP modules provide high-speed optical connectivity for data center

Common Optical Module Form Factors

Instead, the OSFP and its extended size variant, OSFP-XD, have become the primary form factor choices for 800G

Welcome to OSFPmsa

A: No, due to mechanical and electrical differences, OSFP modules are not compatible with OSFP-XD ports, and vice-versa.

OSFP Transceivers: High-Density Optical Connectivity from 400G to

Designed for high thermal capacity, electrical scalability, and forward compatibility, OSFP modules now drive

800Gb/s OSFP Transceivers | Optical Interconnect | Amphenol

Amphenol's 800G OSFP optical modules include 2xDR4(plus), 2xFR4(plus), 2xLR4, AOC, and AOC breakout

OSFP vs. OSFP-XD: Choosing the Right 1.6T Transceiver Form Factor

Explore the differences between 1.6T OSFP and OSFP-XD optical transceivers, including bandwidth scalability,

Understanding OSFP MSA: The Future of Optical Transceivers

The OSFP MSA or Multi-Source Agreement in Octal Small Form-factor Pluggable is a system of rules that describes

Welcome to OSFPmsa

A: The OSFP is a pluggable form factor with 8x high speed electrical lanes that support up to 400 Gbps

SFP Optical Transceiver | SFP Optical Module | Perle

For example, by simply replacing the pluggable optical transceiver, a media converter that was originally used in a multimode

Contact Us

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